PATENT COOPERATION TREATY



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INTERNATIONAL PRELIMINARY REPORT ON PATENTAINFLITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference | | | | |
|---|--------------------------|--------------------|--------------------------------|--|
| 03PCT292-WDZ | FOR FURTHER AC | CTION | See Form PCT/IPEA/416 | |
| International application No. | International filing dat | e (day/month/year) | Priority date (day/month/year) | |
| PCT/CN03/00829 | 28. Sep 200 | 3 (28.09.03) | 23. Jan 2003(23.01.03) | |
| International Patent Classification (IPC) or national classification and IPC | | | | |
| PC 7 B25B 13/14 | | | | |
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| Applicant LLI Hong | | | | |
| LU, Hong | | | | |
| This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. | | | | |
| 2. This REPORT consists of a total of 3 sheets, including this cover sheet. | | | | |
| 3. This report is also accompanied by ANNEXES, comprising: | | | | |
| a. (sent to the applicant and to | | • | sheets, as follows: | |
| sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative | | | | |
| Instructions). | | | | |
| sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond | | | | |
| the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. | | | | |
| b. [(sent to the International Bureau only) a total of (indicate type and number of electronic , | | | | |
| containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). | | | | |
| | | | | |
| 4. This report contains indications relating to the following items: | | | | |
| Box No. I Basis of the report | | | | |
| Box No. II Priority | | | | |
| Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | | |
| ☐ Box No. IV Lack of unity of invention ☐ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; | | | | |
| citations and explanations supporting such statement | | | | |
| Citations and explanations supporting such statement The Box Me. VI Certain documents cited | | | | |
| Box No. VII Certain defects in the international application | | | | |
| Box No. VII Certain descent in the international application | | | | |
| <u> </u> | | | | |
| Date of submission of the demand | | Date of completion | _ | |
| 23.Aug 2004 (23.08.04) | | | 23.May 2005 (23.05.05) | |
| Name and mailing address of the IPEA/CN The State Intellectual Property Office, the P.R.China, | | Authorized office | ZHANGLiquan | |
| 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China | | | | |
| 100088 Facsimile No. 86-10-62019451 | | Telephone No. | 86-10-62085461 | |
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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/CN03/00829

| Box No. I Basis of the report | | | | |
|--|----------------------------------|--|--|--|
| 1. With regard to the language, this report is based on: | | | | |
| the international application in the language in which it was filed | | | | |
| a translation of the international application into, which is the language of a | | | | |
| translation furnished for the purposes of: | 12 1 | | | |
| international search (Rules 12.3(a) and 23.1(b)) | | | | |
| □ publication of the international application (Rule 12.4(a)) | | | | |
| ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a)) | | | | |
| Community examination (Actios 33.2(a) aliaron 33.3(a)) | | | | |
| 2. With regard to the elements of the international application, this report is based on (replacement s | sheets which have been furnished | | | |
| to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not | | | | |
| annexed to this report): | | | | |
| the international application as originally filed/furnished | | | | |
| the description: | | | | |
| pages | as originally filed/furnished | | | |
| pages * received by this Authority on | as originally incolumnshed | | | |
| pages * received by this Authority on | | | | |
| roceived by and realisting on | | | | |
| the claims: | | | | |
| pages | as originally filed/furnished | | | |
| | h any statement)under Article 19 | | | |
| | | | | |
| pages * received by this Authority on | | | | |
| the drawings: | | | | |
| pages | as originally filed/furnished | | | |
| pages ereceived by this Authority on | | | | |
| pages received by this Authority on | | | | |
| | | | | |
| a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing. | | | | |
| | | | | |
| 3. The amendments have resulted in the cancellation of: | : | | | |
| the description, pages | | | | |
| the claims, Nos. | | | | |
| the drawings, sheets/figs | | | | |
| the sequence listing (specify): | | | | |
| any table(s) related to sequence listing (specify): | | | | |
| | İ | | | |
| 4. This report has been established as if (some of) the amendments annexed to this report and list | | | | |
| since they have been considered to go beyond the disclosure as filed, as indicated in the Supp | plemental Box (Rule 70.2(c)). | | | |
| the description, pages | | | | |
| the claims, Nos. | | | | |
| the drawings, sheets/figs | | | | |
| the sequence listing (specify): | | | | |
| any table(s) related to sequence listing (specify): | | | | |
| * If item 4 applies, some or all of those sheets may be marked "superseded." | | | | |

International application No. PCT/CN03/00829

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement 1. Statement: Novelty (N) Claims 1-9 YES Claims None NO Inventive step (IS) Claims 2,6-8 YES Claims 1,3-5,9 NO Industrial applicability (IA) Claims YES Claims None NO

2. Citations and explanations (Rule 70.7)

The closest prior art is represented by document cited CN1227780A (D1).

The difference between said D1 and the art scheme claimed in claim 1 is that, a traction means connected with a shaft may make said shaft rotate, so that the second gear could drive the first gear, and cause said worm move inside said chamber. However, said difference has already been disclosed in CN2139873Y (D2, see Fig 1,2 and reference numbers 3,5,6,10,15). Therefore, it is obvious for skilled persons in the art, to combine the Document 2 on the basis of the Document 1, so as to achieve the art scheme claimed in claim 1, claim 1 does not satisfy the criteria set forth in PCT Art. 33(3), hence involving no inventiveness.

At the same time, the additional technical features of dependent claims 3-5,9 have also been disclosed in said D2. Hence, in the condition that the claim 1 they refer to does not possess inventiveness, claims 3-5,9 don't satisfy the criteria set forth in PCT Art. 33(3), hence involving no inventiveness.

Because the subject matter of claims 1-9 involve industrial applicability, claims 1-9 meet the requirements of PCT Art. 33(4), indeed.